WHAT IS CLAIMED IS:

1. A method of detecting currents on one or more underground pipes or cables comprising: applying a negative voltage to the or each of said pipes or cables, thereby to resist electrolytic effects from damaging said pipes or cables;

modulating said negative voltage on the or each of said pipes or cables;

detecting the magnetic field produced by said currents; and

identifying the pipe or cable on which said currents are present by detecting the modulation of said currents.

2. A method of detecting currents on one or more underground pipes or cables according to claim 1, in which said modulation is a square-wave modulation of non-unitary aspect ratio.

3. A method of detecting currents on one or more underground pipes or cables according to claim 1, wherein said modulation is applied using an interrupter for the or each of said pipes or cables.

4. A method according to claim 3, in which there are a plurality of underground pipes or cables and the interrupters connected to each pipe or cable are synchronised with each other.

5. A method of detecting currents on a plurality of underground pipes or cables according to claim 4, wherein said synchronisation is achieved by each of the interrupters receiving an external time or clock signal.

6. A method of detecting currents on a plurality of underground pipes or cables according to claim 5, wherein said external time or clock signal is a GPS signal.

7. A method of detecting currents on a plurality of underground pipes or cables according to claim 4, wherein the modulation applied to the voltage on each pipe or cable is orthogonal to each of the modulations applied to the other pipes or cables.

8. A method of analysing currents on one of a plurality of underground pipes or cables, comprising:

applying a negative voltage to each of said pipes or cables, thereby to resist electrolytic effects from damaging said pipes or cables;

modulating said negative voltage differently on each of said pipes or cables;

detecting the magnetic field produced by currents on a first of said pipes or cables;

analysing the currents at a first modulation, being the modulation applied to said first pipe or cable;

determining the components of said currents that are due to the pipe or cable itself or to background effects;

analysing the currents at each of the modulations applied to the other underground pipes or cables near to said first pipe or cable; and

determining the components of said currents that are due to linking between said first pipe or cable and each of the other pipes or cables.

9. A method of analysing currents on one of a plurality of underground pipes or cables according to claim 8, in which each modulation is a square-wave modulation of non-unitary aspect ratio.

10. A method of analysing currents on one of a plurality of underground pipes or cables according to claim 8, wherein each modulation is applied using an interrupter for each of said pipes or cables.

11. A method of analysing currents on one of a plurality of underground pipes or cables according to claim 10, wherein the modulation applied to the voltage on each pipe or cable is orthogonal to each of the modulations applied to the other pipes or cables.

12. A method of analysing currents on a plurality of underground pipes or cables comprising:

applying a negative voltage to each of said pipes or cables, thereby to resist electrolytic effects from damaging said pipes or cables;

isolating a first of said pipes or cables;

detecting the magnetic field produced by said currents on said first pipe or cable;

determining from the detected magnetic field the position of said first pipe or cable;

repeating said steps of isolating, detecting and determining for each of said plurality of pipes or cables except one;

detecting the magnetic field produced by currents on all of said plurality of pipes or cables;

determining the location of the remaining one pipe or cable by subtracting the magnetic field due to the other pipes or cables from the magnetic field detected from all of said plurality of cables.

13. A method of analysing currents on two underground pipes or cables comprising:

applying a negative voltage to both of said pipes or cables, thereby to resist electrolytic effects from damaging said pipes or cables;

isolating a first of said pipes or cables;

detecting the magnetic field produced by said currents on said first pipe or cable;

determining from the detected magnetic field the position of said first pipe or cable;

detecting the magnetic field produced by currents on both of said pipes or cables;

determining the location of the other pipe or cable by subtracting the magnetic field due to the other pipes or cables from the magnetic field detected from both of said plurality of cables.

14. A method of analysing currents on a plurality of underground pipes or cables according to claim 12, in which the negative voltage on each pipe or cable is modulated.

15. A method of determining the location of an underground pipe or cable comprising:

a) detecting the magnetic fields from current(s) flowing in said pipe or cable at more than two sensors, each of said sensors producing a signal as a result of the magnetic field detected;

b) determining, from said signals, an estimated direction of said pipe or cable from each sensor;

c) generating a model of a virtual magnetic field generated by a virtual pipe with a current flowing in it;

d) modifying said signals such that the modified signals correspond to those produced by the superposition of said magnetic fields detected and said virtual magnetic field generated by said virtual pipe;

e) determining the change in said estimated directions due to said modification;

f) repeating steps c), d) and e) with said model being different on each repetition, until said estimated directions intersect at a common point, said model being different by variation in the location and/or current of said virtual pipe.

16. A method of powering an electrical device attached to an underground pipe or cable, to which a negative protection voltage is applied, comprising:

connecting a power storage device between said pipe or cable and ground;

using the power stored in said power storage device to power said electrical device.

17. An interrupter for controlling the negative protection voltage applied to an underground pipe or cable, the interrupter comprising:

a switch for controlling said protection voltage;

control means for controlling said switch;

a power storage device, wherein

said power storage device is connected between said negative protection voltage and ground.

18. An interrupter according to claim 17, wherein said switch is a solid state switch.

19. An interrupter for controlling the negative protection voltage applied to an underground pipe or cable, the interrupter comprising:

a switch for controlling said protection voltage;

means for storing a predetermined fixed prior time;

means for storing a predetermined modulation cycle, the predetermined modulation cycle having its origin at the fixed prior time;

timing means for determining the time elapsed between said fixed prior time and the current time;

means for determining the location within said modulation cycle at the current time;

means for setting a signal to a value corresponding to the determined location with said modulation cycle, and subsequently modulating said signal according to said modulation cycle; and

control means for controlling said switch and modulating said negative protection voltage according to said modulated signal.

20. An interrupter according to claim 19, wherein said timing means comprises a GPS receiver